UNIVERSITY AT ALBANY
State University of New York

College of Arts and Sciences
Department of Mathematics and Statistics

Algebra/Topology Seminar

Amit Patel
Institute for Advanced Study, Princeton

Reeb Spaces as Stratified Coverings

Thursday, March 26, 2015
1:15 p.m. in ES-143

Abstract. The Reeb graph of a function tracks the connected components of its fibers. If the function is stratifiable, then its Reeb graph is equivalent to a constructible cosheaf over the reals valued in Set. For a map to a manifold M, we may talk about its Reeb space. If the map is stratifiable, then its Reeb space is equivalent to a constructible cosheaf over M valued in Set.

In this talk I will equate Reeb spaces, stratified coverings, and constructible cosheaves. I will give a classification theorem for all three generalizing the classical classification theorem for ordinary coverings.